SUPPORT FOR THE AMENDMENTS

The present amendment cancels claim 37, amends claim 35, and adds new claim 49.

Support for the amendment to claim 37 is found at specification page 2, lines 20-23, page 29, lines 8-15, as well as original claim 18.

Support for newly added claim 49 is found at specification page 2, lines 6-23 and 32-33, page 3, lines 1-4, page 10, lines 1-2, page 11, lines 23-32, page 12, lines 1-22, page 13, lines 5-17 and 29-31, page 15, lines 5-11, page 18, lines 4-6, page 19, lines 3-8 and 15-29, page 20, lines 10-24, page 21, lines 19-14, page 22, lines 10-32, page 23, lines 1-10, page 29, lines 8-15, as well as original claims 1-3, 6-15 and 18.

It is believed that these amendments have not resulted in the introduction of new matter.

REMARKS

Claims 35 and 38-49 are currently pending in the present application. Claim 37 has been cancelled, claim 35 has been amended, and new claim 49 has been added, by the present amendment. Claims 47 and 48 stand withdrawn from consideration by the Examiner as being directed to a non-elected invention.

The rejection of claims 35-46 under 35 U.S.C. § 103(a) as being obvious over Hasenzahl '112 (U.S. Patent 6,054,112) in view of Hasenzahl '430 (U.S. Patent 5,919,430) is obviated by amendment, with respect claims 35 and 38-49, which requires that the process steps be carried out in sequential order and incorporates therein particular process parameter limitations described and exemplified in the present specification.

Amended claim 35 recites a process for producing a catalytic material in the form of a shaped body comprising at least one zeolite comprising at least one titanium silicalite and being at least partly crystalline, wherein the process comprises in sequential order:

(I) at least partial crystallization of at least one solid material comprising at least one titanium silicalite in a synthesis mixture to produce a mixture (I) comprising at least the solid material and a mother liquor;

(II) separating and/or concentrating of the solid material in the mixture (I) obtained from the at least partial crystallization (I);

(C) calcining the solid material obtained from the separating and/or concentrating (II) to produce a calcined solid material;

(W) washing the calcined solid material obtained from the calcining (C) with deionized water at a temperature of 120-175°C;

(S) shaping the calcined solid material obtained from the washing (W) to produce a shaped body and drying the shaped body at a temperature of 30-140°C for a period of 1-20 hours;

(C) calcining the shaped body at a temperature of 400-800°C for a period of 3-10 hours; and

(W) washing the shaped body obtained from the calcining (C) with deionized water,

wherein the separating and/or concentrating (II) of the solid material is carried out by a method selected from the group consisting of filtration, ultrafiltration, diafiltration, centrifugation, spray drying and spray granulating, and

wherein the shaping (S) of the calcined solid material is carried out by a method selected from the group consisting of pelleting, pressing, extruding, sintering, roasting and briquetting.

New claim 49 recites a process for producing a catalytic material in the form of a shaped body comprising at least one zeolite comprising at least one titanium silicalite and being at least partly crystalline, wherein the process comprises in sequential order:

(I) at least partial crystallization of at least one solid material comprising at least one titanium silicalite in a synthesis mixture to produce a mixture (I) comprising at least the solid material and a mother liquor;

(II) separating and/or concentrating of the solid material in the mixture (I) obtained from the at least partial crystallization (I);

(W1) optionally washing the solid material obtained from the separating and/or concentrating (II) with deionized water at a temperature of 120-175°C with stirring for a period of 12-24 hours;

(III) optionally agglomerating and/or granulating the solid material obtained from the washing (W1) if present;

(C1) calcining the solid material obtained from the separating and/or concentrating (II), the washing (W1) if present, or the agglomerating and/or granulating (III) if present, to produce a calcined solid material;

(W2) washing the calcined solid material obtained from the calcining (C1) with deionized water at a temperature of 120-175°C with stirring for a period of 12-24 hours;

(D1) drying the calcined solid material obtained from the washing (W2) at a temperature of 30-140°C for a period of 1-20 hours;

(C2) calcining the calcined solid material obtained from the drying (D1) at a temperature of 400-800°C for a period of 3-10 hours;

(S) shaping the calcined solid material obtained from the calcining (C2) to produce a shaped body;

(W3) optionally washing the shaped body obtained from the shaping (S) with deionized water;

(D2) drying the shaped body obtained from the shaping (S), or the washing (W3) if present, at a temperature of 30-140°C for a period of 1-20 hours;

(C3) calcining the shaped body obtained from the drying (D2) at a temperature of 400-800°C for a period of 3-10 hours; and

(W4) washing the shaped body obtained from the calcining (C3) with deionized water,

wherein the separating and/or concentrating (II) of the solid material is carried out by a method selected from the group consisting of filtration, ultrafiltration, diafiltration, centrifugation, spray drying and spray granulating, and

wherein the shaping (S) of the calcined solid material is carried out by a method selected from the group consisting of pelleting, pressing, extruding, sintering, roasting and briquetting.

Hasenzahl '112 describes a process for producing a catalytic material comprising: separating a crystalline solid from a mother liquor by centrifugation; washing the crystalline solid with deionized water; drying the crystalline solid; calcining the crystalline solid to produce the catalytic material; washing the catalytic material with an aqueous solution of ammonium nitrate or ammonium acetate; drying the catalytic material; calcining the catalytic material; and optionally shaping the catalytic material (See e.g., column 3, lines 31-42 and 51-54, column 4, lines 8-15 and 43-49). Contrary to page 5, lines 8 and 14-15 of the Official Action, Hasenzahl '112 describes that the optional shaping step is conducted *after* calcination.

Hasenzahl '430 describes a process for producing a catalyst comprising: performing a hydrothermal reaction of a pyrogenic metal-silicon mixed oxide, in the presence of a template compound, to completely convert the pyrogenic metal-silicon mixed oxide to a crystalline microporous or mesoporous metal silicate; optionally washing the crystalline microporous or mesoporous metal silicate to remove the template compound; and calcining the crystalline microporous or mesoporous metal silicate to remove the template compound to produce the catalyst, which optionally undergoes *simultaneous* shaping during calcining (See e.g., abstract, column 2, lines 51-57, column 3, lines 58-67, column 4, lines 1-3 and 50-67, column 5, lines 1-20). Contrary to page 5, lines 17-19 of the Official Action, Hasenzahl '430 fails to describe that "the material may be shaped before, during or after calcinations, and before or after the washing steps" (See e.g., column 5, lines 1-3 and 16-20).

Unlike the present invention, Hasenzahl '112 and Hasenzahl '430, when considered alone or in combination, also fail to disclose or suggest the claimed process, which includes the following steps that are carried in the following order and under the following conditions:

(W) *washing* the calcined solid material with deionized water *at a temperature of 120-175°C*;

(S) *shaping* the calcined solid material to produce a shaped body;

(D) *drying* the shaped body *at a temperature of 30-140°C for a period of 1-20 hours*;

(C) *calcining* the shaped body *at a temperature of 400-800°C for a period of 3-10 hours;* and

(W) *washing* the shaped body with deionized water.

Therefore, Hasenzahl '112 and Hasenzahl '430, when considered alone or in combination, fail to disclose or suggest conducting the process steps in the specific order and under the particular process parameter limitations, as presently claimed. As a result, Hasenzahl '112 and Hasenzahl '430, when considered alone or in combination, fail to anticipate or render obvious the presently claimed process.

Assuming *arguendo* that sufficient motivation and guidance is considered to have been provided by Hasenzahl '112 and Hasenzahl '430 to direct a skilled artisan to conduct the process steps in the specific order and under the particular process parameter limitations, as presently claimed, which is clearly not the case, such a case of obviousness is rebutted by a showing of unexpected results.

As discussed in the present specification and evidenced by the comparative experimental data presented therein, Applicants have discovered that superior catalytic properties, with respect to selectivity, yield, activity and stability, for example, are surprisingly exhibited by the claimed catalytic material produced by the process of the present invention, as compared to the inferior properties exhibited by traditional catalytic

materials produced by conventional processes, which do not conduct the process steps in the specific order and under the particular process parameter limitations, as presently claimed (See e.g., page 2, lines 11-23 and 32-33, page 3, lines 1-4, page 13, lines 11-17, page 15, lines 1-11, page 19, lines 15-29, page 21, lines 9-14, page 23, lines 22-32, and page 24, lines 1-2).

Hasenzahl '112 and Hasenzahl '430, when considered alone or in combination, fail to disclose or suggest that superior catalytic properties, with respect to selectivity, yield, activity and stability, for example, are surprisingly exhibited by the claimed catalytic material produced by the process of the present invention, as described and exemplified in the present specification.

Withdrawal of this ground of rejection is respectfully requested.

In conclusion, Applicants submit that the present application is now in condition for allowance and notification to this effect is earnestly solicited.

Respectfully submitted,

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